

Levy (R.)

Medical Education.



President's address delivered before
The Colorado State Medical Society,
June 17th, 1897,

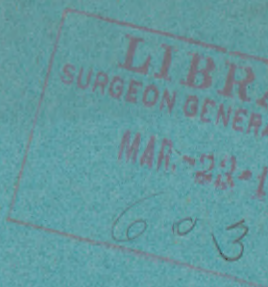
by

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Professor of Laryngology and Physiology,
Gross Medical College, etc., etc.
Denver, - Colorado.



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Members of the Colorado State Medical Society,

Ladies and Gentlemen:—Upon a certain occasion a renowned professor was shown by one of his students a set of Greek verses. After looking them over the professor who had a curious way of commenting on such work, glanced up rather blankly and said to the author, "Have you any taste for mathematics?"

In conforming to the custom established in this Society and provided for by our By-Laws, I realize the greatest incapacity for presenting an address worthy of this honorable and representative medical body. The criticism, therefore, which my attempt merits may possibly be such as was passed upon the student of Greek; but duty urges me on and I must accept the inevitable.

Presidents' Addresses.—In reviewing the addresses of your previous presidents, it will be seen that the history of our Society, recommendations for its more hearty support and for co-operation, exhortations in reference to our public duties and suggestions for the improvement of our system of medical training, have all been well presented. Such leaders as Graham, Collins, Stedman, Hawes and Rogers have urged us on and encouraged us in paths which will lead to good ends; yet what has resulted from their various recommendations? Who pays any attention to the advice and requests of a retiring president?

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Does the president's address teach anything—does it advance any laudable action? History proves that presidents' addresses do bear fruit, if not directly then indirectly, by stimulating thought in certain desirable channels.

What I have to offer you is nothing new. It deals with topics that have been the theme of all general medical addresses from time immemorial and which to-day form the basis of nearly every presidential discourse. My subject may be labelled "Medical Education." It will be so divided as to present no new thoughts, but, rather, old ones in new apparel.

Historical. Medical education, like medical progress, has been the result of a process of gradual evolution springing, not spontaneously "like Minerva from the front of Jove, full panoplied for war," rather has it "unfolded slowly" and "is yet unfolding." In its evolution it is keeping "pace with the intellectual development of the race." Medical training in the most ancient times was conducted along traditional lines. Closely associated with religious practices, it is not surprising that the first medical schools should have been conducted in temples of religious worship. The Temples of Aesculapius were schools, hospitals, dispensaries and sanctuaries, and here scientific medicine had its origin, for the priests kept notes of cases, and studied and taught from these clinical records.

After Constantine's conversion and during the middle ages these schools were closed, and medical progress was at a standstill until the Nestorians, Jews and Arabians again developed Philosophy and the sciences. In 1140 the first medical college in Europe was founded, and from this period the history of our science seems to teem with most startling and lasting discoveries.

When we study the origin and progress of medical education in our own country we are impressed with the wonderful conception of thoroughness evinced by our earliest teachers, The great questions which are agitating us to-day, of medical education, of medical practice, of hospital and dispensary control, of preparatory requisites, of final requirements, of curriculum, were as fully discussed and their importance was as clearly realized then as now. Our fathers planned even better than do we, but unfortunately, facilities for giving substance to

their ideas were unobtainable. Drs. William Shippen and John Morgan organized the medical department of the College of Philadelphia in 1765, and it is interesting to remark what a high standard of preliminary and undergraduate requirements was adopted by these fathers of American medical education. Unfortunately, however, for higher education, as a result of the rapidly growing needs of the times it became necessary to educate physicians more quickly and in greater numbers. This marked demand had the effect of dispensing with the preliminary degree of Bachelor of Medicine, and made it possible to secure the degree of Doctor of Medicine at the age of twenty-one instead of twenty-four, as had been the previous rule.

Defects in Medical Teaching. Medical schools now sprang up rapidly, east and west, and we find the early part of our century the weakest period in medical instruction. The defects in operation then have largely existed ever since, and only now are we escaping from the errors of those days. How like our present complaints are the sentiments expressed by that pioneer, Daniel Drake, in 1832. "In a little volume of practical essays on medical education he points out with the unsparing finger of truth, the defects in the preparatory education of a majority of medical men. He denounces the wrong done by the reckless competition of needlessly numerous schools, wholly unendowed and conducted far too largely in the personal interests of their faculties. He insists with caustic force upon the flagrant inadequacy of the curriculum then required and asserts that even three years of actual study with longer sessions is too short, that four years should be rendered indispensable. He demands that the didactic element in teaching should be subordinated to such practical training as will develop the power of accurate observation." (Pepper.)

Progress During Apparent Weakness. Drake's observations were the result of a condition of affairs which to-day obtains to even a greater degree, but the end of which is certainly dawning. And, yet, during these years of apparent decline medical science and art have been ever on the ascent. What more glorious achievements in human progress than those which are the fruit of medicine's labor during the past fifty years? Does not every department of medicine and surgery proclaim and

apocalypse of wonderful discoveries? Have our numerous schools, our superfluity of new doctors, prevented the birth of anesthesia, of sanitary prophylaxis, of instruments of precision in diagnosis and of scientific etiology, pathology and treatment? We pause then from condemning an age of such remarkable progress, even though the ban of our disapproval be placed upon certain results of American enterprise and industry. Drake had, and still has, his followers; his good example and advice appeal to all. The organization of the American Medical Association (1846) was the direct outcome of the unsatisfactory state of medical education at the time. The report of the organizing committee recommends that such an institution be formed "for"—among other things—"cultivating and advancing medical knowledge, for *elevating the standard of medical education* and for promoting the usefulness, honor and interests of the medical profession." The American Medical Association has utility in certain functions; these, however, lie less in the advancement of medical education than in other directions. The American Academy of Medicine (1876) next took up the problem and is to-day laboring hard, but with a force handicapped by small numbers, to "raise the standard." Then came (1890) the Association of American Medical Colleges. Organized at Nashville, with delegates from fifty-five colleges, it has gradually grown to a membership representing a very small majority of all regular schools. This association has done, and is still doing, much towards the accomplishment of the medical millennium. It is, however, but one means to an end, and, although a strong factor, still it is not the most potent. History teaches us that in medical education, as in other things, environment and the circumstances of the times bring about changes by a process of evolution. We pass through our origin, our enlightened period, our dark ages. We ebb and tide, and our destiny is accomplished *volens nolens*.

One cannot deny, however, that each and every means to the achievement of a desired end is valuable and praiseworthy. Every organized cry against the evils of our educational system will hasten the cure; every improvement in medical college equipment, in curriculum, in requirements, in the control of schools and practice will aid the onward march.

Citizenship. The recognition of our individual capabilities in moulding public opinion and in contributing to the physician's standing in the community, will yield more power by which to arrive at the next higher plane in the process of our evolution. We must overcome certain silly prejudices concerning our position in public affairs. It is not degrading to take part in politics, except in the "sewers of politics." Rather should we aim to lend our influence to such legislation as shall result in the greatest good to all humanity, and so merit Sir Edwin Arnold's eulogy—"an army whose victories are the triumphs of all mankind, and whose enemies are all men's enemies."

It has always struck me that we do not profit by examples of public men of our profession in other countries and in history. Ours is not a parental land, but one governed by states, by individuals. We have each an opportunity to emulate Virchow, to become such practical statesmen as are found in Italy and elsewhere. During the Roman Empire physicians wielded great public influence and were the recipients of many royal favors. In our land what more glorious examples than those of Warren and Rush, in whose time men of our profession were active in public affairs. Where to-day will we find a Drake, ready to advance every public enterprise of merit, commercial, educational and philanthropic? Why have we so few prototypes of past greatness? Is it for lack of direct material bearing on our life-work? What of commerce as influenced by our new sciences? Agriculture to-day is already largely governed by bacteriology. What of public health? Spencer shows that teaching to maintain health is of prime importance in man's happiness, and in his self preservation and success. Are we doing all we can to establish a department of public health and a cabinet officer? Our boards of health have too little power because the medical profession lends them but scanty and fragmentary support. It is not that our strength and influence are unrecognized, but that active and aggressive citizenship is not practiced. We possess certain truths but we fail to execute their lessons. Cleveland correctly put it in his recent address before the New York Academy of Medicine. After showing how our professional triumphs have placed it in our power to

correct many evils that still exist, he says: "We cannot but think that the discoveries and improvements in the medical practice which we now enjoy are dearly bought if the members of the profession in their onward march have left behind them their sense of civic obligation and their interest in the general welfare. We cannot keep out of mind the suspicion that, if your professional work in exposing evils were more thoroughly supplemented by labor in the field of citizenship, these evils would be more speedily corrected. If laws are needed to abolish abuses which your professional investigations have unearthed, your fraternity should not be strangers to the agencies which make the laws. If members of your profession were oftener found in our national and state legislative assemblies, ready to advocate the reformatory measures you have demonstrated to be necessary, and to defend your brotherhood against flippant and sneering charges of impracticability, the prospect of your bestowal upon your fellowmen of the ripened results of your professional labor would be brighter and nearer." Is it not our duty if we would be considered "the best, the gentlest, the loftiest and the purest of the secular crafts which men follow,"—to regulate the education of our children? We might well profit by certain suggestions of an English authority, namely, "the amendment of excessive hours of study, especially during spurts of growth and development; correction of the deficiency of systematic outdoor exercise and recreation; and more regard of physiologic functions differentiating the capacity for work at certain times of girls as compared with boys." Our influence may be wielded with good effect by working in conjunction with the legal profession for the proper regulation of criminals, victims of diseased minds. We may advise in the construction of houses, as to height, light, ventilation, etc.; we may be felt in the control of the insane and of paupers, in the management of consumptives and in the better protection of the people from the devices and deceits of charlatanism.

Control of Practice. And this brings me to speak of legislative control of medical practice. Those who have ever tried to pass a medical bill through our state legislature can appreciate the difficulties which beset us. And still, persistent patience has rewarded us with twenty-one states in which not

only diplomas but examination of the candidate as well, is a prerequisite to practice. In our state a most desirable bill was drafted by the present legislative committee of this society, and I wish here to publicly thank that committee, in behalf of the regular profession of this state, for the most diligent work of its kind ever done in Colorado. Some opposition was met even in our own ranks, not to the bill but to the means employed. Not only work, influence and wire pulling are necessary, but money as well, and in our foolish pride, deeming it derogatory to our high principles to employ attorneys to further our interests, some of us are ready to submit to the control of practice by "osteopaths" and "healers." Fortunately, the majority of our ranks realized the force of money, and sufficient funds were obtained to put the bill through the house and early on the calendar of the Senate. It is safe to say that had it not been for the tactics of some of our great statesmen (?), whereby every bill—even that for necessary appropriations—was blocked, we to-day would have a medical law in this state that would be both an honor and a benefit to our entire commonwealth. Let us not, however, give up the fight, but enter the field again and again, personally, actively, aggressively. Let us learn from the examples of Alabama, whose medical society and profession, as quoted by President Graham, 1880, spent over \$40,000 before accomplishing the desired result. As bearing directly upon medical education, we can then with much profit study our functions in the department of public duty.

The Specialist. Another province of medical education, and one for the study of which the times are propitious, is that of the specialist, his *raison d'etre*, his limitations, his relations to the general practitioner. Even in biblical times we learn of a certain physician for "intestinal diseases." Among the early Egyptians each practitioner applied himself to one disease, no more, and the skilled embalmer constituted one class. Herodotus tells us that in his day medicine was highly specialized, each department being in the hands of special practitioners, such as aurists, oculists, bonesetters, etc. (Allen.) In China there were specialists for nearly every division of the body, for external and internal diseases.

In our day the high status of medicine and surgery is due

mainly to special and detailed investigation into minutiae, necessitating a certain subdivision of labor. The same condition is apparent in the profession of law, of engineering, in mercantile pursuits, in manufacturing, in government, in art—in all human occupations whose progress is so rapid as to be beyond the individual brain to master in one short span of life. It would be otherwise

“Could a man be secure
That his days would endure
As of old, for a thousand long years;
What things might he know!
What deeds might he do!
And all without hurry or care.”

The specialist is also largely the result of our broader view of the physician's responsibility to his patient. He finds that careful preparation and investigation in special lines returns more satisfactory and definite results; he finds his thoughts quickened, his insight clearer.

The functions of the specialist are not in such narrow lines as many would have us believe, for, while his special study and practice raise him to a position of more accurate knowledge in a certain direction, yet does his rational intellect prevent the ignoring of general and important relative facts. The more he works on sound general principles and the further he extends his specialty, by lasting links binding it to other branches of medicine, the more he may expect to see it thrive and retain an honored and honorable position. (McBride) The idea of a limited field of specialism is being wiped out. The time is fast approaching when we will no longer hear facetious allusions to “officialists, tenotomists, female castrationists;” nor will we read of “the difference of arterial pressure in each of the two nasal fossae with operatory deductions” and the division into right and left rhinologists. Elsberg's conception of the domain of laryngology may be taken as a guide by all specialties. He says this specialty “embraces *par excellence* the larynx, around which are grouped many other parts.” He includes the continuous mucous membrane of the respiratory and alimentary tracts and adjacent cavities, and shows that certain diseases of these regions must sometimes be considered by laryngologists.

Too great a latitude, however, must not be assumed by the

specialist; we can hardly agree with Kelsey, that a rectal specialist is "one who is prepared to cure the patients who come to him with trouble in the rectum," even to the extent of doing curettements of the uterus, hysterectomies and ovariectomies. There is as much danger in one extreme as in the other, and the position of the principle of specialism must not be undervalued because of the errors of individuals. Excessive specialism is being counteracted by the "effacement of the strict division between" the departments by the "recognition that there are no lines separating them, but lines continuous, on which joint action depends." (Da Costa.)

The Specialist and the Generalist. It has been very justly said that "much more frequently the fault is with the generalist who, ignoring or misinterpreting the original, and possibly local, source of a symptom, wrongly and ineffectively treats the patient by drugs for something which is usually recognized and promptly curable by the surgeon specialist." (Weir Mitchell-Lenox Browne.) The relation of specialist to general practitioner should be one of concerted action, each taking advantage of the other's experience and assistance. There is no need of fear that either the general practitioner or the specialist will be driven from the field. Each has his prominent place in the profession, and this place will be strengthened by each becoming broader in his views. The generalist is often too narrow, as is the specialist; they are both as often at fault; but the fact that each class is a necessity assures us that the position of both will be so clearly defined and maintained that only good will result. The specialist alone will be able to make the rapid strides forward which point the way. He will be the teacher of the future, and his students will be practitioners of such thorough knowledge as will best fit them for the struggle which their life's work entails. They will be like "the experienced master of the ship" who "is, of course, most competent to command, so long as his voyage lies in the open sea; but when he approaches a strange harbor on a danger shore, and feels the full weight of responsibility that a valuable cargo and precious lives impose, will certainly take on a pilot who is especially familiar with the channel and its peculiar perils." (Lincoln.)

Colorado Medical Schools. In an address on medical edu-

cation, although considered in the broadest sense, it would indeed seem strange were I to omit any allusion to the Hamlet in the play, namely, our own medical schools. I shall not review the past or the present situation of medical education in Colorado, but wish simply to make a plea for greater loyalty to our home institutions and to refute the frequent aspersions cast upon us by members in our own ranks and elsewhere. Whether we have three schools or one, the fact remains that Denver is a suitable location for a medical college. It is also irrefutable that we have sufficient and competent teaching force to rival many a large eastern institution. It remains true, however, that a very *large* school cannot be expected. Besides the fact that Denver is a good field for a medical school in the same degree that similar cities are, it should be conceded that an actual *necessity* for one exists in the fact that our Rocky Mountain region is largely populated by students who cannot live elsewhere, and who desire to study medicine or finish their studies begun in the east. For the same reason we possess teachers of ability, beyond that found in other small cities and equal to that of the best medical centers

Small vs. Large Schools. The only valid argument against us then would seem to be that we cannot form a large school. Were it not for lack of time I could quote page after page from celebrated authors, giving example after example from all over the world, to prove the advantages of the small over large institutions of medical learning.

The system of didactic instruction is rapidly making way for, although it will not be supplanted by, the recitation system. In this plan it is conceded that a class of twenty is as large as can be satisfactorily handled. In an address by Ingals on the "Necessities of a Modern Medical School," although attempting to frighten the smaller schools by a scarecrow of figures representing the necessary funds for proper equipment, he is compelled to admit that the division of the larger classes into sections is essential and suggests that "ambitious young men" may be called upon "to do about two-thirds of the work," the professors simply outlining the plan of instruction. Can these "ambitious young men" not be supplanted with advantage to the student by the competent professor of a small school? It seems

desirable to conduct recitation work in all but the clinical department, and what applies to the branches taught in the first years applies with even greater force to laboratory and, later on, to clinical instruction. Bilroth advises to "flee, therefore, in the beginning of your clinical studies, the great universities.' Osler recommends "the substitution in the third and fourth years of daily personal contact with the sick for much of the present didactic work," which again necessitates small classes. I am firmly of the opinion that even the small schools of Denver have given excellent medical instruction and may do as good work as any large eastern school.

Fewer Schools. It cannot be denied, however, that were there less schools here, as well as elsewhere, even better results would be obtained, and certainly many schools could be dispensed with throughout the land and still not overcrowd the classes. At the present time, and perhaps at this very hour, committees are at work attempting a solution of the question of fewer schools, or, possibly of one school in Colorado. I sincerely trust some good may come of their work, but desire to impress upon you one fact, which is, that amalgamation does not mean absorption of all the faculties by one and that, until this is not only freely acknowledged but as freely put into practice, it would seem that the one school idea is still a dream.

Medical Societies. In conclusion I wish to offer a few words relative to medical societies and our own in particular. Medicine is the noblest of professions; the meanest of trades. By association with others this truth may be impressed continually. The fostering of petty jealousies and selfish motives does not enter into the functions of a medical society, nor can private grudges or political aims constitute a portion of its deliberations. "This is no field for the exercise of the skill of the parliamentary tactician or political wireworker. The prime object in the adoption of our Constitution and By-Laws was to lubricate the wheels of scientific progress, not to clog and hinder their movements." (Battey.) In medical societies we have the best medium for advancing and establishing new ideas, new operations, new methods. Example and contact further scientific research "and we are justified in assuming that the great progress made in the healing art during the present century

may be largely attributed to the stimulating influence of the medical associations." (Bayard.)

The Mountain Medical Society. In this connection I desire to call attention to and recommend the organization of a "Mountatn Medical Society" which shall include Colorado, Wyoming, Idaho, Montana, Utah, New Mexico and Arizona. A movement to this end is already on foot and many advantages to be derived from an interchange of thought from our adjacent states and territories will readily be appreciated after a little consideration.

The Colorado State Medical Society. Does our State Society perform its full duty towards the medical profession? In 1888 President Solly likened our Society to a young maiden making her debut at eighteen and passing into the ranks of the matured state societies of the country. Have we taken advantage of all that our entrance into "society" has offered us? Have we grown to the fullest proportions of womanhood? We believe our influence is still too limited, our numbers are less than they should be, our State members still cry out against Denver as monopolizing the Society. May I, without offense or appearance of churlishness, suggest that a society is controlled by those who take most interest in it, and not by those who fail to attend its meeting, or who ask themselves whether it is worth while to spend the time at its annual convention.

This meeting, as many of the past, has been a credit to the profession of Colorado and of the entire land. Its papers and discussions may go on record as worthy of a place in the archives of medical progress. Let us then, by united action, by fraternal love, maintain our proud position and foster and further our own welfare and that of this Association.

